

## **OPERATIONS for BSE and Variable Pressure:**

1. Click the HOME on the PC\_SEM Control Panel to bring stage to home position and wait until with the final buzzer sound (HOME in stable green).
2. Make sure “SE Tip” is lit up in yellow and Vacc part is flashing between yellow and blue on the PC\_SEM Control Panel. Click ON to start SEM high voltage.
3. Choose the SE detector under the IMAGE tab of the PC\_SEM Operation Panel.
4. Adjust brightness and contrast.
5. Choose high voltage and probe current from the PC\_SEM Setup menu (Optics) by mouse clicking “Vacc” region. Get the desired probe current by compromising among the Suppressor voltage, Anode and OBJ apertures.
6. Focus at low mag and choose your working distance from the Stage Tab under the PC\_SEM Operation Panel.
7. Adjust astigmatism with the sample at high magnification first with the focus then with the stigmators (x and y) and finally with the focus again.
8. If you are not satisfied with the resolution, open the alignment window by clicking Align button from the control panel, and follow the alignment procedures through using the alignment x/y handles.
9. To get an image, push Capture bottom. Image resolution could be selected with the up-right corner (▲) button with opening the resolution list.
10. Save the image to the User directory under the hard drive D:\Image\.
11. To finish, turn off the Accelerating voltage and Click the HOME.
12. If you have used the BSE detector or the EBSD detector you must move them out NOW.
13. Set the stage in exchange position by clicking the EXC on the PC\_SEM Operation Panel to move the stage to the exchange position (confirming X, Y, Z, R and T).
14. Take out the sample from the SEM chamber (see the sample loading guide).
15. Close the PC\_SEM program and log off the SEM PC.